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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/627,501	07/25/2003	Heinz Zoch	032301.341	3242

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ATLANTA, GA 30309-3592

EXAMINER
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CHEUNG, WILLIAM K

ART UNIT	PAPER NUMBER
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1713

DATE MAILED: 04/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/627,501

Applicant(s)

ZOCH ET AL.

Examiner

William K. Cheung

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 09 February 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,3-10,12,14,15 and 17-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-10,12,14,15 and 17-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Request for Continued Examination***

1. The request filed on February 9, 2006 for a Request for Continued Examination (RCE) under 37 CFR 1.53(d) based on parent Application No. 10/627,501 is acceptable and a RCE has been established. An action on the RCE follows. Claims 1, 3-10, 12, 14, 15, 17-25 are pending.

### ***Claim Objections***

2. Claims 1, 12, 15 are objected to because of the following informalities: Claims 1, 12, and 15 are identical claims. Appropriate correction is required.
3. Claims 3, 14, 17 are objected to because of the following informalities: Claims 1, 12, and 15 are identical claims. Appropriate correction is required.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
  2. Ascertaining the differences between the prior art and the claims at issue.
  3. Resolving the level of ordinary skill in the pertinent art.
  4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
5. Claims 1, 3-10, 12, 14, 15, 17-25 are rejected under 35 U.S.C. 103(a) as obvious over Nagasawa et al. (US 5,609,671).

*The invention of claims 1, 3-10, 20-25 relates to an **aqueous, colloidal, freeze-resistant and storage-stable gas black suspension**, comprising **2-30 wt.% gas black** having a DBP number of 40-200 ml/100g, **0-40 wt.% carbon black**, a **dispersion-supporting additive**, a **biocide** and **water**, and having a **zeta potential of less than -10 mV**, a **surface tension of greater than 50 mN/m** and an average **particle size of less than 200 nm** wherein the dispersion-supporting additive is a **neutralized styrene-acrylic acid copolymer** with an average molecular weight of*

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**1000-20,000, having an acid value of 120-320 and which is present in the amount of 1 to 50 wt.%.**

*The invention of claims 12, 14 relates to an **aqueous, colloidal, freeze-resistant and storage-stable gas black suspension**, consisting essentially of **2-30 wt.% gas black** having a DBP number of 40-200 ml/100g, **0-40 wt.% carbon black**, a **dispersion-supporting additive**, a **biocide** and **water**, and having a **zeta potential of less than -10 mV**, a **surface tension of greater than 50 mN/m** and an average **particle size of less than 200 nm** wherein the dispersion-supporting additive is **neutralized styrene-acrylic acid copolymer** with an average molecular weight of **1000-20,000**, having an **acid value of 120-320** and which is present in the amount of **1 to 50 wt.%**.*

*The invention of claims 15, 17 relates to an **aqueous, colloidal, freeze-resistant and storage-stable gas black suspension**, consisting of **2-30 wt.% gas black**, having a DBP number of 40-200 ml/100g, **0-40 wt.% carbon black**, a **dispersion-supporting additive**, a **biocide** and **water**, and having a **zeta potential of less than -10 mV**, a **surface tension of greater than 50 mN/m** and an average **particle size of less than 200 nm** wherein the dispersion-supporting additive is **neutralized styrene-acrylic acid copolymer** with an average molecular weight of **1000-20,000**, having an **acid value of 120-320** and which is present in the amount of **1 to 50 wt%**.*

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Nagasawa (col. 1, line 33-37) disclose a carbon black dispersion stabilized in an aqueous medium in the presence of styrene(meth)acrylic resin.

Regarding the claimed "gas black", it is a kind of carbon black produced by a specific process. However, the claimed "gas black" is still a carbon black based on its composition, which is also affirmed by applicants' specification (page 2, line 18-31). Therefore, the recited "gas black" is merely functional language that does not lend itself to patentability.

Regarding the claimed DBP values being claimed, the carbon black teachings in Nagasawa (col. 1, line 33-37) generically include the gas black and its properties as claimed. Therefore, the examiner has a reasonable basis to believe that it would not be difficult to one of ordinary skill in art to recognize that any carbon black, including the one as claimed, would be suitable for the invention of Nagasawa. Motivated by the expectation of success, it would have been obvious to one of ordinary skill in art to recognize that all carbon black would be suitable for obtaining the carbon black dispersion of Nagasawa to obtain the gas black limitation being claimed.

Regarding the claimed neutralized styrene-acrylic acid copolymer being claimed, the styrene(meth)acrylic resin teachings in Nagasawa (col. 1, line 33-37) generically include the neutralized styrene-acrylic acid copolymer as claimed. Therefore, the

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examiner has a reasonable basis to believe that it would not be difficult to one of ordinary skill in art to recognize that any styrene(meth)acrylic resin, including the one as claimed, would be suitable for the invention of Nagasawa. Motivated by the expectation of success, it would have been obvious to one of ordinary skill in art to recognize that all styrene(meth)acrylic resin would be suitable for obtaining the carbon black dispersion of Nagasawa to obtain the neutralized styrene-acrylic acid copolymer limitation being claimed.

In order to overcome the rejection set forth, applicants must submit comparative data to show the criticality of employing the specific type of carbon black and the neutralized styrene-acrylic acid copolymer of instantly claimed invention.

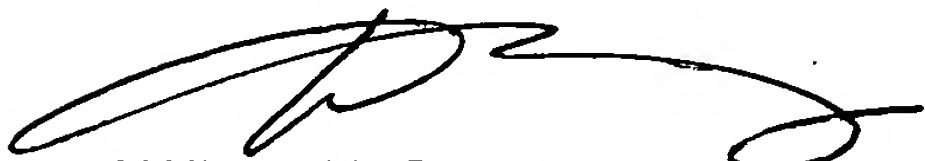
### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William K. Cheung whose telephone number is (571) 272-1097. The examiner can normally be reached on Monday-Friday 9:00AM to 2:00PM; 4:00PM to 8:00PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David WU can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



William K. Cheung, Ph. D.

Primary Examiner

April 15, 2006

**WILLIAM K. CHEUNG**  
**PRIMARY EXAMINER**